EXECUTIVE SUMMARY

The Scholl Canyon Landfill is a cooperative effort between the City of Glendale (City), the County of Los Angeles (County), and the County Sanitation Districts of Los Angeles County (Sanitation Districts). The Sanitation Districts operate the Scholl Canyon Landfill as a Class III municipal solid waste disposal facility on land owned by the City, the County, and the Southern California Edison Company pursuant to a Joint Powers Agreement between the City, the County, and the Sanitation Districts. The site is located in the City of Glendale at 3001 Scholl Canyon Road, which is north of the Ventura Freeway (Highway 134) at the Figueroa Street exit. The landfill has been in operation since 1961. During 1999, the landfill received an average of approximately 1,379 tons of refuse per day. The remaining site capacity is approximately 9.3 million tons.

The Scholl Canyon Landfill is in the eastern extreme of the Upper Los Angeles River Area of the Los Angeles River watershed. The crystalline bedrock underlying the San Rafael Hills area is considered non-water bearing (Department of Water Resources, 1971). The site is underlain predominantly by igneous and metamorphic rock consisting of gneisses, tonalites, and granites with some quartzite intrusions. Near the surface, the bedrock is extensively weathered and fractured. A small percentage of the near surface fractures can store and transmit water. The Sanitation Districts have installed groundwater protection and control facilities to prevent off-site migration of waste constituents from the landfill. These facilities include a subsurface barrier and extraction well system, a seepage collection system, and a network of water quality monitoring wells.

This annual monitoring report summarizes water quality monitoring and waste disposal data at the Scholl Canyon Landfill for 1999. It is prepared in accordance with Order No. 93-062, *Amended Waste Discharge Requirements for all Municipal Solid Waste Disposal Sites in the Los Angeles Region Implementing State Water Board Resolution No. 93-62*, issued by the California Regional Water Quality Control Board, Los Angeles Region (RWQCB), in September 1993. In response to this Order, the Sanitation Districts submitted *Scholl Canyon Landfill Water Quality Monitoring System Report in Compliance with Order No. 93-062* (Subtitle D Report) on August 7, 1995. The groundwater monitoring program proposed in the Subtitle D Report replaces and supplements the program specified in *Order No. 88-112, Waste Discharge Requirements for the County Sanitation Districts of Los Angeles County (Scholl Canyon Landfill)* (Order No. 88-112) and *Monitoring and Reporting Program No. 2846 for the County Sanitation Districts of Los Angeles County (Scholl Canyon Landfill)* (MRP No. 2846), both adopted by the RWQCB in 1988.

In January 1998, the Sanitation Districts began to implement a revised groundwater monitoring program for the corrective action program. The corrective action program was proposed by the Sanitation Districts in 1997 due to the detection of volatile organic compounds in the groundwater downgradient of the subsurface barrier. The corrective action program for Scholl Canyon Landfill was approved by the RWQCB in November 1997. The program proposed the installation and operation of five bedrock groundwater extraction wells downgradient of the landfill to enhance the collection of landfill affected groundwater. These wells (EW1B, EW2B, EW3B, EW4B, and EW5B) were installed in 1998; operation of the new extraction wells began in December 1998. The final report for the well installation, including geologic logs and as-built drawings, was submitted to the RWQCB on July 1, 1999.

In 1999, groundwater samples were collected and analyzed pursuant to Title 40, Code of Federal Regulations, Part 258 (Subtitle D), Title 27, California Code of Regulations, and RWQCB Order No. 93-062. Surface water was sampled and analyzed pursuant to National Pollutant Discharge Elimination System permit requirements. Reuse water was sampled and analyzed pursuant to RWQCB Order No. 88-112 and MRP No. 2846. Groundwater quality monitoring results indicated low levels of volatile organic compounds (VOCs) in groundwater immediately downgradient of the landfill. However, no VOCs were detected at monitoring wells M18A or M18B, which are located approximately 2,400 feet downgradient of the site.

Landfill gas monitoring has been implemented at selected locations in Scholl Canyon Park on a monthly basis since January 1998. The purpose of landfill gas monitoring is to determine whether enhanced groundwater extraction in the subsurface barrier area may induce landfill gas migration and contact with groundwater. Monitoring is conducted at ten piezometers or wells. Methane, oxygen, and total organic compounds measured as methane in the head space of the monitoring points are measured using a gas meter and an organic vapor analyzer. The monitoring results from 1999 show that enhanced groundwater extraction has not promoted landfill gas migration in the Scholl Canyon Park area, or caused the VOC concentration in groundwater to increase.

Results of reuse water quality monitoring during 1999 indicated that standards specified in Order No. 88-112 were met except in two cases. During the third quarter, gross beta radiation was detected at a concentration of 95 picocuries per liter (pci/L), exceeding its reuse water standard of 50 pci/L. The water was retested and the result (45.1 pci/L) met the standard. During the fourth quarter, arsenic was detected at a concentration of 0.055 milligrams per liter (mg/L), which is slightly above the reuse water standard of 0.050 mg/L. The sample was collected following installation of higher capacity groundwater pumps in extraction wells EW2B and EW3B on October 22, 1999. The Sanitation Districts believe that the elevated arsenic concentration is due to the high suspended solids level resulting from the initial operation of new pumps. This is a temporary condition and will be mitigated once these pumps are in normal operation.

Two surface runoff samples were collected following rainfall events during the 1998 - 1999 rainy season. A single volatile organic compound (acetone) was detected in these samples. The Sanitation Districts believe acetone detected in both samples is the result of laboratory contamination, because acetone was detected in both equipment and trip blank samples. The runoff monitoring results indicate that the Scholl Canyon Landfill does not affect surface water quality.